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In re Patent Application of ROOS
Serial No. 09/741,741
Filed: December 21, 2000
Title: APPARATUS AND METHOD FOR PROVISION OF A BACK-UP CONNECTION IN A TELECOMMUNICATIONS SYSTEM

Atty Dkt. 2483-26
C# M#
TC/A.U.: 2638
Examiner: Bayard, Emmanuel
Date: November 16, 2005

Mail Stop Appeal Brief - Patents

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

☐ **Correspondence Address Indication Form Attached.**

☐ **NOTICE OF APPEAL**

Applicant hereby **appeals** to the Board of Patent Appeals and Interferences from the last decision of the Examiner twice/finally rejecting applicant's claim(s). \$500.00 (1401)/\$250.00 (2401) \$

☒ **A REINSTATED APPEAL BRIEF** is attached in the pending appeal of the above-identified application \$500.00 (1402)/\$250.00 (2402) \$

☐ Credit for fees paid in prior appeal without decision on merits -\$ ()

☐ A reply brief is attached. (no fee)

☐ Petition is hereby made to extend the current due date so as to cover the filing date of this paper and attachment(s)
One Month Extension \$120.00 (1251)/\$60.00 (2251)
Two Month Extensions \$450.00 (1252)/\$225.00 (2252)
Three Month Extensions \$1020.00 (1253)/\$510.00 (2253)
Four Month Extensions \$1590.00 (1254)/\$795.00 (2254) \$

☐ "Small entity" statement attached.

Less month extension previously paid on -\$ ()

TOTAL FEE ENCLOSED \$ 0.00

Any future submission requiring an extension of time is hereby stated to include a petition for such time extension. The Commissioner is hereby authorized to charge any deficiency, or credit any overpayment, in the fee(s) filed, or asserted to be filed, or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our **Account No. 14-1140**. A duplicate copy of this sheet is attached.

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Signature: _____



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

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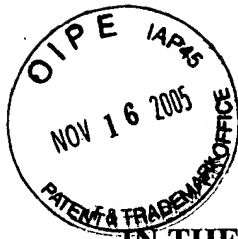
Before the Board of Patent Appeals and Interferences

BRIEF FOR APPELLANT
On Appeal From Final Rejection
From Group Art Unit 2638

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APPEAL BRIEF

Sir:

I. REAL PARTY IN INTEREST

The real party in interest is the assignee, Telefonaktiebolaget L M Ericsson (publ),
a Swedish corporation.

II. RELATED APPEALS AND INTERFERENCES

There are no other appeals related to this subject application. This is a reinstated
appeal brief filed further to the appeal brief filed on June 27, 2005 which resulted in the
withdrawal of the final rejection based on McHale in view of Bremer and further in view

of Duffie and the current new grounds of rejection. There are no interferences related to this subject application.

III. STATUS OF CLAIMS

Claims 12-22 are pending. Claims 12-22 stand rejected under 35 U.S.C. §103 as being unpatentable based on newly-applied USP 6,483,870 to Locklear.

IV. STATUS OF AMENDMENTS

The after final submission on March 23, 2005 was entered by the Examiner.

V. SUMMARY OF THE CLAIMED SUBJECT MATTER

The inventor long ago recognized the significant demand for high speed data services for a variety of data applications. He also understood that speed was not the only concern and that data communication reliability was also important. For example, once a high speed modem for a data communication has been installed and activated, what happens to that connection if that high speed modem connection fails for any reason, (e.g., mistakes during installation or activation, instabilities in power distribution, PSTN signal interference in the network, etc.)? See page 2 of the specification. And how are large numbers of installed and connected high speed data connections monitored to ensure proper operation and to detect failures? See page 3 of the specification.

These problems are solved using the invention defined in claims 12 and 18. A non-limiting, example arrangement is shown in Figure 3. A user terminal 10, 20 is

coupled to a net terminal 12, 22 which operates as a gateway between the user terminal and an xDSL network. The net terminal includes an analog, narrowband (e.g., V.90) modem 16, 26 and a broadband (e.g., xDSL) modem 18, 28. An initial narrowband connection for the data communication is preferably established using the analog modem.

To the switch over to a broadband connection, the net terminal instructs a broadband access control server 70 to communicate with a switch-over function on the "station side" (the station side in Figure 3 includes blocks 40, 50, 60, and 70), which can be situated in a cross connect 40, a modem pool 50, or some other unit under the control of the access server 70. The access server 70 then transmits a signal to the net terminal which then activates a switch-over in the net terminal. The xDSL modem of the net terminal is then able to transceive data at high data rates with the modem pool 50 on the station side.

But if the high speed communication is interrupted for any reason, the switch-over functions in both the terminal and station sides are deactivated by access server 70, and the communication is continued on the narrowband connection used initially to establish the session. That way the transmitted data still reaches its intended destination, albeit at a slower rate. As soon as the high speed connection can be re-established, the communication can be switched over from the narrowband connection. The flow chart in Figure 4 illustrates an example operational procedure.

VI. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

The sole rejection to be reviewed on appeal is the obviousness rejection based on Locklear.

VII. ARGUMENT

A. The Locklear Reference

Locklear supports a communication session between a device 12 and an associated server 16 using a modifiable number of XDSL modems 50 and a modifiable number of associated twisted pair lines 22. As explained at col. 4, lines 4-8, "device 12 and server 16 support high bandwidth data service in the local loop using asymmetric digital subscriber line (ADSL) technology, high bandwidth digital subscriber line (HDSL) technology, very high bandwidth digital subscriber line (VDSL) technology, or other suitable high bandwidth technology." Col. 6, lines 3-6 group all of these high bandwidth modems as XDSL modems: "Modems 50 transmit and receive data using any suitable digital subscriber line technology, such as ADSL, VDSL, or HDSL, referred to generally as XDSL."

As described in claim 1 of Locklear, data is communicated data "using a plurality of XDSL modems." Loading information for the plurality of XDSL modems (e.g., a percentage of the capacity of the modem being used) is determined and compared to threshold information. A number of XDSL modems to be allocated for communicating data associated with a session is then determined in response to the comparison. An

XDSL modem is added if the loading information exceeds corresponding threshold information or removed if below a threshold. See claim 2 in Locklear.

B. The Locklear Reference Lacks Multiple Claimed Features

Locklear lacks a number of claim features recited in the independent claims 12 and 18. For example, claims 12 and 18 recite a net terminal coupled between the user terminal and an access point. The Examiner identifies server 16, central office 24, and PSTN 26 in Figure 1 as corresponding to that claimed net terminal. The Examiner identifies data network 14, server 16 (again), and server 17 as corresponding to the claimed access point. These assignments made by the Examiner break down upon examination.

First, although the "net terminal" server 16 includes a modem pool 104 of XDSL modems 50, the "access point" 14, which is a data network in Locklear lacks any modems. The net terminal server 16 cannot also be the claimed access point. The net terminal server 17 is simply an embodiment of server 16 where the terminals 20 are coupled to the data network 14 "without the use of twisted pair lines 22." Col. 4, lines 38-40. Thus, the Examiner has not identified anything *separate* from the net terminal server 16/17 that could be viewed as a separate access point that also includes modems.

The Examiner's reference to col. 5, lines 13-23 relates to off-hook detection and frame detection, which have nothing to do with what is claimed. The reference to modems in Locklear at col. 7, lines 39-65 made on page 3 of the office action is again to modems in the server 16, which is *already identified* as corresponding to the net terminal.

So the Examiner fails to identify a viable structure for the claimed access point separate from the structure already identified for the net terminal.

Second, if the Examiner is contending that the server 16 shown in Figure 3 is both the net terminal and the access point, it is not clear how the server 16 can be "coupled between the user terminal and an access point," as recited in the independent claims.

Third, the claimed net terminal and access point each have their own modems. The server 16 in Figure 3 includes only one set of modems.

Fourth, the claims recited two different types of modems: "a first high speed, broadband modem" and "a second, lower speed narrow band modem." The net terminal includes both high speed modem and a lower speed modem. The access point includes both high speed modem and a lower speed modem. All of the modems in Locklear are the same type: XDSL. See for example the Abstract, the summary at col. 1, lines 49-51, the detailed description at col. 6, lines 3-6, and claims 1 and 2.

C. There Is No Proper Motivation to Modify the XDSL Modems Described in Locklear

The Examiner admits that Locklear does not teach "a modem pool of high speed, broadband modem, a second, lower speed, narrowband modem." That is true. What is also true is that Locklear does not teach *both* a net terminal and an access point (separate from the net terminal) having both types of modems.

The Examiner deals with just the quoted admitted deficiency by saying that since "Locklear et al teaches modems using ADSL, VDSL and HDSL technology (see col. 6, lines 3-10), it would have been obvious to one of ordinary [sic] in the art to implement a

modem pool of high speed, broadband modem, a second, lower speed, narrowband modem in the Locklear as to provide better performance for large and constant data rates in order to enhance the system capability."

Even if one were to incorporate such different modem pools in server 16, that would only solve part of the problem, because only one of the net terminal and the access server would have different types of modems, but not the other. In addition, Locklear is completely dedicated to XDSL modems. As pointed out above, the abstract, summary, detailed description, and claims all describe and are limited to XDSL modems. There is no hint that it would be desirable to include lower speed, narrowband modems. Instead, the approach to lower load (a lower bandwidth requirement) in Locklear is to assign a lower number of XDSL modems to the session or to drop one or more previously-assigned modems.

The Examiner refers to col. 6, lines 3-10. But this text supports the opposite position rather than the one that the Examiner advances. The text states: "[m]odems 50 transmit and receive data using any suitable digital subscriber line technology, such as ADSL, VDSL, or HDSL, referred to generally as XDSL." Thus, it is clear that these are all the same type of modem, which is entirely consistent with the way the instant application treats digital subscriber line technology. That is why the term XDSL was coined and is used—both in Locklear and in the instant application. None of the XDSL modem technology is lower speed or narrowband. Indeed, Locklear confirms the fact that XDSL modems, including ADSL, HDSL, and VDSL modems, are all high speed, high bandwidth modems at col. 4, lines 3-8: "device 12 and server 16 support *high*

bandwidth data service in the local loop using asymmetric digital subscriber line (ADSL) technology, high bandwidth digital subscriber line (HDSL) technology, very high bandwidth digital subscriber line (VDSL) technology, or other suitable high bandwidth technology."

The Examiner states that incorporating lower speed modems would "provide better performance for large and constant data rates in order to enhance the system capability." How can that be? Slower modems with narrow bandwidth decrease data rates and thus performance.

Thus, in addition to not teaching the combination of claim features recited in the independent claims, the obviousness rejection is improper because the motivation to modify Locklear is lacking.

D. Dependent Claim Features Are Patentable For Additional Reasons

As established above, there are multiple reasons why the rejection of the independent claims 12 and 18 is improper. A number of dependent claim features are also not disclosed or suggested by the combination of these three references.

Claims 14 and 19 recite controlling "the first and second switching circuitry to select the second modem and the one narrow band modem if or when the connection cannot be supported as desired between the first modem and the one broadband modem." The Examiner cites no evidence in Locklear that teaches this feature. Why would Locklear select a lower speed modem when no lower speed modem is even disclosed?

Claim 16 recites "the controller is configured to establish the connection using the second modem and the one narrowband modem, and thereafter, to control the first and

second switching circuitry to select the first modem and the one broadband modem." Similar language is found in claim 21. The Examiner points to nothing in Locklear to demonstrate where this feature is taught. The Examiner makes a vague reference that "Locklear would be configured to...." This is a clear admission that Locklear does not teach what is claimed. Nor does the Examiner advance any proper motivation from the prior art (as opposed to Applicant's own disclosure) as to why Locklear would be so configured..

Claim 17 recites "wherein a data connection and a voice connection are established and supported in parallel with the user terminal using the first and second modems and the one broadband modem and the one narrowband modem." Similar language is found in claim 22. There is no teaching in Locklear of supporting parallel voice and data connections with a user terminal using a narrowband modem and a broadband modem. The Examiner makes no attempt to show where these features are found in a prior art reference—let alone in Locklear.

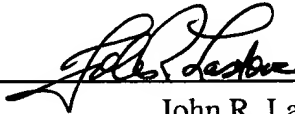
VIII. CONCLUSION

Multiple features of the independent claims are not disclosed or suggested by Locklear. There is no proper motivation to modify Locklear as the Examiner proposes. Each missing claim feature and the lack of motivation for combination is an independent ground for reversal. The Board should reverse the outstanding rejection.

Appeal Brief
Roos
Serial No. 09/741,741

Respectfully submitted,

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By: 
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JRL/sd
Enclosures
Appendix A - Claims on Appeal

IX. CLAIMS APPENDIX

12. Apparatus for use in a communications system for providing access to telecommunication services, comprising:

a user terminal operable by a subscriber for receiving telecommunication services;

a net terminal coupled between the user terminal and an access point associated with a communications network including a first high speed, broadband modem, a second, lower speed, narrowband modem, and first switching circuitry selectively controllable to direct signals to and from the user terminal via the communications network using the first modem or the second modem;

the access point including one or more high speed, broadband modems, one or more lower speed, narrowband modems, and second switching circuitry, different from the first switching circuitry, selectively controllable to support a connection with the user terminal via the communication network using one of the broadband modems or one of the narrowband modems; and

a controller for controlling the first and second switching circuitry to support the connection.

13. The apparatus in claim 12, wherein the high speed, broadband modem is an xDSL modem and the lower speed, narrowband modem supports a PSTN or ISDN narrowband connection.

14. The apparatus in claim 12, wherein the controller is configured to control the first and second switching circuitry to select the second modem and the one narrowband modem if or

when the connection can not be supported as desired between the first modem and the one broadband modem.

15. The apparatus in claim 12, wherein the controller is configured to regulate switching of the first and second switching circuitry based on detection of one or more predetermined conditions.

16. The apparatus in claim 12, wherein the controller is configured to establish the connection using the second modem and the one narrowband modem, and thereafter, to control the first and second switching circuitry to select the first modem and the one broadband modem.

17. The apparatus in claim 12, wherein a data connection and a voice connection are established and supported in parallel with the user terminal using the first and second modems and the one broadband modem and the one narrowband modem.

18. A method for use in a communications system for providing access to telecommunication services to a subscriber associated with a user terminal operable by the subscriber for receiving telecommunication services, comprising:

providing a net terminal coupled between the user terminal and an access point associated with a communications network including a first high speed, broadband modem, a second, lower speed, narrowband modem, and first switching circuitry selectively controllable to direct signals to and from the user terminal via the communications network using the first modem or the second modem,

providing at the access point one or more high speed, broadband modems, one or more lower speed, narrowband modems; and second switching circuitry, different from the first

switching circuitry, selectively controllable to support a connection with the user terminal via the communication network using one of the broadband modems or one of the narrowband modems;
and

controlling the first and second switching circuitry to support the connection.

19. The method in claim 18, further comprising:

controlling the first and second switching circuitry to select the second modem and the one narrowband modem if or when the connection can not be supported as desired between the first modem and the one broadband modem.

20. The method in claim 18, further comprising:

switching of the first and second switching circuitry based on detection of one or more predetermined conditions.

21. The method in claim 18, further comprising:

establishing the connection using the second modem and the one narrowband modem,
and

controlling the first and second switching circuitry to select the first modem and the one broadband modem.

22. The method in claim 18, further comprising:

establishing and supporting a data connection and a voice connection in parallel with the user terminal using the first and second modems and the one broadband modem and the one narrowband modem.

X. EVIDENCE APPENDIX

There is no evidence appendix.

XI. RELATED PROCEEDINGS APPENDIX

There is no related proceedings appendix.